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### Remarks

The present response is to the Office Action mailed the above-referenced case on November 29, 2006. Claims 1-39 are standing for examination. Claims 1, 13 and 25 are objected to because of informalities. Claims 14-17, 21-24, and 30-33 are rejected under 35 U.S.C. 112, second paragraph. Claims 1-39 remain rejected under 35 U.S.C. 102 (b) as being anticipated by Dobbins et al. (U.S. 5,751,971), hereinafter Dobbins.

Applicant has carefully studied the reference provided by the Examiner, and the Examiner's rejections and statements of the instant Office Action.

In response to the Examiner's objection to claims 1, 13 and 25, applicant herein argues that all of the structural aspects of applicant's claims are clearly shown in Figures 7-11 and the functional portions are clearly taught in the related portions of the specification, which satisfies applicant's requirements of the disclosure.

In response to the Examiner's rejection of applicant's claims, applicant amends the claims to more particularly point out the hierarchy of bonds and to overcome the 112 rejection asserted by the Examiner. Applicant herein provides argument to more particularly point out and clarify to the Examiner the subject matter of applicant's invention regarded as patentable, which the applicant believes is not taught by Dobbins.

Regarding the 112 rejection claim 14 and 30 are herein amended to clarify that up and down thresholds are determined by bandwidth in related data links. Therefore, the claims should now be clear to the Examiner and the rejection removed.

Applicant's independent claims are amended to positively recite that a logical interface as a component of the bond at a top level of the hierarchy defines a plurality of data links; and a first subjegate logical interface at a second level of the hierarchy, as a component of the top-level logical interface defines a portion of the data links as defined in the logical interface at he top level of the hierarchy. Therefore, the IP interfaces of Dobbins can no longer read on applicant's claims, as amended.

As seen in Fig. 2 of Dobbins Interfaces 12A and 12B are related to applicant's logical interface as a component of the bond at a top level of the hierarchy because they both have the same IP address. Interfaces 12A and 12B exit the router to physical

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networks 13A and 13B with connected hosts 14 which are considered workgroups in the art of Dobbins. As can clearly be seen in the drawing a single data link 13A and 13B connect the hosts 14. Applicant claims the top hierarchy having a plurality of data links.

As previously argued that the key and patentable aspect of applicant's invention is that an addressable virtual grouping (S-bond 802) is provided within another addressable virtual interface (P-bond 801) wherein each bond contains a plurality of data links. S-bond 802 and P-bond 801 are both addressable in layer 3. However, each of the individual ports cannot be, and do not need to be addressed in layer 3. Referring again to applicant's Fig. 8, in layer 3 the four physical links to LC1 can be addressed, as well as P-bond 801 and S-bond 802. Bonds 801 and 802 are virtual interfaces having components of one another at separate routing levels. Virtual S-bond 802 is actually nested within virtual P-bond 801. Applicant's invention provides for having a virtual interface, or bond, composed of another virtual interface, which could itself have a virtual interface and a physical interface, or just a physical interface. One bond can be composed of other bonds which could be composed of other virtual bonds or physical bonds in any combination.

Applicant clearly teaches a primary bond (P-bond) 801 is illustrated in this example as an aggregation of 14 data links. Six data links of P-bond 801 are ported to LC 3. An S-bond 802 is also illustrated in this example as an aggregation of seven data links. The seven links of the S-bond are seen as a single data link of the P-bond in layer 3 (page 23, lines 10-14).

Applicant argues, Dobbins clearly teaches a multi-interface router 11 for connecting several physical networks to an IP internet. The router 11 includes multiple interfaces 12A, 12B, each of which connects to a physical networks 13A & 13B including one or more hosts 14. The hosts of Dobbins cannot read on data links as claimed in applicant's invention primarily because they each have a static address.

The idea of bonds as discussed in applicant's background section is well-known in the art. However, applicant argues that having bonds within bonds was not known at the

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time of the invention. Applicant's invention teaches true hierarchical bonding structure, which is clearly not taught in the invention of Dobbins.

Given applicant's claim amendments and arguments above, independent claims 1, 7, 13 and 25, all of which recite hierarchical bonding structure, are clearly and unarguably patentable over the reference of Dobbins. Depending claims 2-6, 8-12, 14-24 and 26-39 are then patentable on their own merits, or at least as depended from a patentable claim.

As all of the claims standing for examination have been shown to be patentable as argued over the art of record, applicant respectfully requests reconsideration, and that the present case be passed quickly to issue. If there are any time extensions needed beyond any extension specifically requested with this response, such extension of time is hereby requested. If there are any fees due beyond any fees paid with this amendment, authorization is given to deduct such fees from deposit account 50-0534.

Respectfully Submitted,  
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